

AD-A155 795

NATIONAL PROGRAM FOR INSPECTION OF NON-FEDERAL DAMS
CHERRYFIELD DAM ME-88. (U) CORPS OF ENGINEERS WALTHAM
MA NEW ENGLAND DIV MAR 79

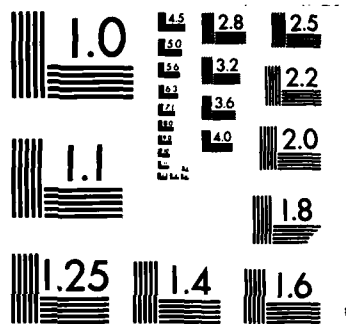
1/1

UNCLASSIFIED

F/G 13/13

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

AD-A155 795

DTIC FILE COPY

NARRAGUAGUS RIVER BASIN
CHERRYFIELD, MAINE

CHERRYFIELD DAM
ME-00061

PHASE I INSPECTION REPORT
NATIONAL DAM INSPECTION PROGRAM



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS. 02154

MARCH 1979

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

85 06 2 0 63

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER ME 00061	2. GOVT ACCESSION NO. / RECIPIENT'S CATALOG NUMBER A1337793	
4. TITLE (and Subtitle) Cherryfield Dam NATIONAL PROGRAM FOR INSPECTION OF NON-FEDERAL DAMS	5. TYPE OF REPORT & PERIOD COVERED INSPECTION REPORT	
7. AUTHOR(s) U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION	6. PERFORMING ORG. REPORT NUMBER	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	8. CONTRACT OR GRANT NUMBER(s)	
11. CONTROLLING OFFICE NAME AND ADDRESS DEPT. OF THE ARMY, CORPS OF ENGINEERS NEW ENGLAND DIVISION, NEDED 424 TRAPELO ROAD, WALTHAM, MA. 02254	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	12. REPORT DATE March 1979	
	13. NUMBER OF PAGES 45	
	15. SECURITY CLASS. (of this report) UNCLASSIFIED	
	16a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report) APPROVAL FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES Cover program reads: Phase I Inspection Report, National Dam Inspection Program; however, the official title of the program is: National Program for Inspection of Non-Federal Dams; use cover date for date of report.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) DAMS, INSPECTION, DAM SAFETY, Narraguagus River Basin Cherryfield Maine Narraguas River		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The dam is 24.5 ft. high stone filled timber crib and earth embankment structure. The dam is assessed to be in good condition. There are no major areas of concern. It is intermediate in size with a hazard potential of high,		



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM, MASSACHUSETTS 02154

REPLY TO
ATTENTION OF
NEDED

SEP 17 1979

Honorable Joseph E. Brennan
Governor of the State of Maine
State Capitol
Augusta, Maine 04330

Dear Governor Brennan:

I am forwarding to you a copy of the Cherryfield Phase I Inspection Report, which was prepared under the National Program for Inspection of Non-Federal Dams. This report is presented for your use and is based upon a visual inspection, a review of the past performance and a brief hydrological study of the dam. A brief assessment is included at the beginning of the report. I have approved the report and support the findings and recommendations described in Section 7 and ask that you keep me informed of the actions taken to implement them. This follow-up action is a vitally important part of this program.

A copy of this report has been forwarded to the Department of Agriculture and the Department of Transportation, cooperating agencies for the State of Maine. In addition, a copy of the report has also been furnished the owner, Town of Cherryfield, Town Office, Cherryfield, Maine 04622.

Copies of this report will be made available to the public, upon request, by this office under the Freedom of Information Act. In the case of this report the release date will be thirty days from the date of this letter.

I wish to take this opportunity to thank you, the Department of Agriculture and the Department of Transportation for your cooperation in carrying out this program.

Sincerely yours,


MAX B. SCHEIDER

Colonel, Corps of Engineers
Division Engineer

Incl
As stated

NARRAGUAGUS RIVER BASIN

CHERRYFIELD, MAINE

CHERRYFIELD DAM

ME-00061

PHASE I INSPECTION REPORT
NATIONAL DAM INSPECTION PROGRAM

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input checked="" type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A//	



NATIONAL DAM INSPECTION PROGRAM

PHASE I INSPECTION REPORT

ME-00061

CHERRYFIELD DAM

CHERRYFIELD

WASHINGTON COUNTY, MAINE

NARRAGUAGUS RIVER

November 29, 1978

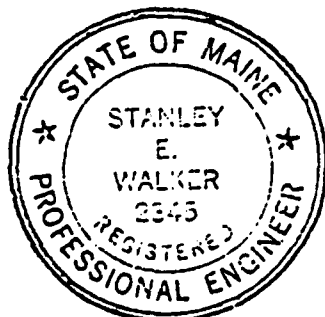
BRIEF ASSESSMENT

The Cherryfield Dam is a 24.5-foot high stone-filled timber crib and earth embankment structure. It consists of stone-filled timber crib abutments, a stone-filled timber crib spillway section, and earthfill embankments. The dam is about 500 feet long including embankment sections.

Based on the visual inspection and reports of past operational performance, the Cherryfield Dam is assessed to be in good condition. There are no areas of major concern.

Based on size classification (intermediate) and hazard potential (high), the spillway test flood is the probable maximum flood (PMF). The spillway capacity is approximately 24,000 cfs or about 44 percent of the routed test flood outflow. During the test flood, water would overtop the earth embankments by about 7 feet. The routed 1/2 PMF outflow would overtop the west embankment by about 1 foot.

The following items of remedial maintenance, as outlined in Section 7, should be implemented to enhance the integrity of the structure within 2 years after receipt of this report by the owner: 1) fill the sag in the west embankment to grade; 2) replace downstream stop logs in west sluiceway; 3) refill the center upstream timber crib pier with stones, and develop a formal warning system and implement its use in the event of an emergency.



EDWARD C. JORDAN CO., INC.

A handwritten signature in dark ink, appearing to read "Stanley E. Walker".

Stanley E. Walker, P.E.
Project Officer

Cherryfield Dam

PREFACE

This report is prepared under guidance contained in the Recommended Guidelines for Safety Inspection of Dams, for Phase I investigations. Copies of these guidelines may be obtained from the Office of Chief of Engineers, Washington, D.C. 20314. The purpose of a Phase I investigation is to identify expeditiously those dams which may pose hazards to human life or property. The assessment of the general condition of the dam is based upon available data and visual inspections. Detailed investigation, and analyses involving topographic mapping, subsurface investigations, testing, and detailed computational evaluations are beyond the scope of a Phase I investigation; however, the investigation is intended to identify any need for such studies.

In reviewing this report, it should be realized that the reported condition of the dam is based on observations of field conditions at the time of inspection along with data available to the inspection team. In cases where the reservoir was lowered or drained prior to inspection, such action, while improving the stability and safety of the dam, removes the normal load on the structure and may obscure certain conditions which might otherwise be detectable if inspected under the normal operating environment of the structure.

It is important to note that the condition of a dam depends on numerous and constantly changing internal and external conditions, and is evolutionary in nature. It would be incorrect to assume that the present condition of the dam will continue to represent the condition of the dam at some point in the future. Only through continued care and inspection can there be any chance that unsafe conditions be detected.

Phase I inspections are not intended to provide detailed hydrologic and hydraulic analyses. In accordance with the established guidelines, the spillway test flood is based on the estimated "Probable Maximum Flood" for the region (greatest reasonable possible storm runoff), or fractions thereof. Because of the magnitude and rarity of such a storm event, a finding that a spillway will not pass the test flood should not be interpreted as necessarily posing a highly inadequate condition. The test flood provides a measure of relative spillway capacity and serves as an aide in determining the need for more detailed hydrologic and hydraulic studies, considering the size of the dam, its general condition and the downstream damage potential.

This Phase I Inspection Report on Cherryfield Dam has been reviewed by the undersigned Review Board members. In our opinion, the reported findings, conclusions, and recommendations are consistent with the Recommended Guidelines for Safety Inspection of Dams, and with good engineering judgment and practice, and is hereby submitted for approval.

Joseph A. McElroy

JOSEPH A. MCELROY, MEMBER
Foundation & Materials Branch
Engineering Division

Carney M. Terzian

CARNEY M. TERZIAN, MEMBER
Design Branch
Engineering Division

Joseph W. Finegan, Jr.

JOSEPH W. FINEGAN, JR., CHAIRMAN
Chief, Reservoir Control Center
Water Control Branch
Engineering Division

APPROVAL RECOMMENDED:

Joe B. Fryar
JOE B. FRYAR
Chief, Engineering Division